Example SITE PLAN REVIEW CHECKLISTS

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1.0. INTRODUCTION

Site design and plan review checklists provide general guidance for both the designer and plan reviewer. Many items listed on the checklists may not apply to any given design and it is therefore up to the designer to indicate items as “not applicable” or “NA” as appropriate. Similarly, the reviewer must be able to distinguish which items are required based on the local conditions or requirements and verify the status of those items. These checklists serve as a tool for providing the designer with the necessary information needed to develop an approveable plan, as well as for providing the program authority with a consistent plan review procedure.

2.0. EXAMPLE CHECKLIST FOR A PRELIMINARY STORMWATER MANAGEMENT SITE PLAN PREPARATION AND REVIEW

1. Applicant Information

Initial/Preliminary Plan Submission Date ______________
Project Name ________________________________________________
Site Plan/Permit Number
Site Address ____________________________________________________________________
Applicant ________________________________________ Phone Number ______________
Applicant Legal Address ________________________________________________________
Owner __________________________________________ Phone Number ______________
Principal Designer _________________________________ Phone Number ______________
General Contractor Phone Number

2. Plan Status

_____ Approved

_____ Not Approved

Legend: □ - Complete

Inc. - Incomplete/Incorrect

N/A - Not Applicable

3. ________ Common address (with latitude and longitude coordinates or GPS position) and legal description of the site, including the tax reference number(s) and parcel number(s) of the property or properties affected.

4. Existing and proposed mapping and plans (recommended scale of 1” = 50’, or greater detail), which illustrates the following at a minimum:

_____ North arrow

_____ Legend

_____ Vicinity map

_____ Existing and proposed topography (minimum of 2-foot contours recommended)

_____ Property lines

_____ Perennial and intermittent streams

_____ Mapping of predominant soils from USDA soils surveys

_____ Boundaries of existing predominant vegetation, areas of the site to be protected from disturbance, and proposed limits of clearing and grading
EXAMPLE Site Plan Review Checklists

______ Location and boundaries of natural feature protection and conservation areas, such as wetlands, lakes, ponds, aquifers, public drinking water supplies, and applicable setbacks, etc.

______ Identification of any on-site or adjacent water bodies included on the Virginia 303(d) list of impaired waters

______ Current and proposed land use and location of existing and proposed roads, buildings, parking lots and other impervious areas

______ Location and description of any planned demolition of existing structures, roads, etc.

______ Location of existing and proposed utilities [e.g., water (including wells), sewer (including septic systems), gas, electric, telecommunications, cable TV, etc.] and drainage and other easements

______ Preliminary estimates of unified stormwater sizing criteria requirements

______ Preliminary identification and calculation of stormwater site design credits, if any apply

______ Preliminary selection and location of stormwater control measures

______ Location of existing and proposed conveyance systems, such as storm drains, inlets, catch basins, channels, swales, and areas of overland flow

______ Flow paths

______ Location of floodplain/floodway limits and relationship of site to upstream and downstream properties and drainages

______ Preliminary location of all contributing drainage areas and points of stormwater discharge, receiving surface waters or karst features into which stormwater discharges, the pre-development and post-development conditions for drainage areas, and the potential impacts of site stormwater on adjoining parcels

______ Note all critical areas on the plan, such as critical slopes.

5. Hydrologic and hydraulic analysis, including the following:

______ A hydrologic analysis for the existing (pre-development) conditions, including runoff rates, volumes, and velocities, showing the methodologies used and supporting calculations

______ A hydrologic analysis for the proposed (post-development) conditions, including runoff rates, volumes, and velocities, showing the methodologies used and supporting calculations

______ Hydrologic and hydraulic analysis of the stormwater management system for all applicable design storms

______ Preliminary sizing calculations for stormwater control measures, including contributing drainage areas, storage, and outlet configurations

______ Preliminary analysis of the potential downstream impacts/effects of the project, where necessary

6. _______ Preliminary erosion and sediment control plan that, at a minimum, meets the requirements outlined in the Virginia Erosion and Sediment Control Regulations and Handbook

7. _______ Preliminary landscaping plans for stormwater control measures and any site reforestation or revegetation

8. ______ Preliminary identification of waiver/exception requests
3.0. EXAMPLE CHECKLIST FOR A FINAL STORMWATER MANAGEMENT SITE PLAN PREPARATION AND REVIEW

1. Applicant Information

Final Plan Submission Date ____________________
Project Name ____________________________________________
Site Plan/Permit Number
Site Address ____________________________________________________________________
Applicant ________________________________________ Phone Number ______________
Applicant Legal Address ________________________________________________________
Owner __________________________________________ Phone Number ______________
Principal Designer _________________________________ Phone Number ______________
General Contractor Phone Number ______________

2. ______________ Signature and stamp of licensed professional consultant and owner certification

3. Plan Status

_____ Approved

_____ Not Approved

Legend: □ - Complete

Inc. - Incomplete/Incorrect

N/A - Not Applicable

4. ______ Common address and legal description of the site, including the tax reference number(s) and parcel number(s) of the property or properties affected.

__________________________________________________________________________

5. ______________ A narrative that includes a description of current site conditions and proposed development and final site conditions, including proposed use of environmental site design techniques and practices, stormwater control measures, relevant information pertaining to long-term maintenance of these measures (see item #12 below), and a construction schedule.

6. Existing and proposed mapping and plans (recommended scale of 1” = 50’, or greater detail), which illustrates the following at a minimum:

______ North arrow
______ Legend
______ Vicinity map
______ Existing and proposed topography (minimum of 2-foot contours recommended)
______ Property lines
______ Perennial and intermittent streams
______ Mapping of predominant soils from USDA soils surveys as well as the location of any site-specific test bore hole investigations that may have been conducted and information identifying the hydrologic characteristics and structural properties of soils used in the installation of stormwater management facilities
Boundaries of existing predominant vegetation and proposed limits of clearing and grading
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_____ Location and boundaries of natural feature protection and conservation areas (e.g., wetlands, lakes, ponds, aquifers, public drinking water supplies, etc.) and applicable setbacks (e.g., stream buffers, drinking water well setbacks, septic drainfield setbacks, building setbacks, etc.)

_____ Identification of any on-site or adjacent water bodies included on the Virginia 303(d) list of impaired waters

_____ Current land use and location of existing and proposed roads, buildings, parking lots and other impervious areas

_____ Location and description of any planned demolition of existing structures, roads, etc.

_____ Proposed land use(s) with a tabulation of the percentage of surface area to be adapted to various uses, including but not limited to planned locations of utilities, roads, parking lots, stormwater management facilities, and easements

_____ Location of existing and proposed utilities [e.g., water (including wells), sewer (including septic systems), gas, electric, telecommunications, cable TV, etc.] and easements

Earthwork specifications

_____ Selection, location and design of both structural and non-structural stormwater control measures, including maintenance access and limits of disturbance

_____ Storm drainage plans for site areas not draining to any BMP(s)

_____ Location of existing and proposed conveyance systems, such as storm drains, inlets, catch basins, channels, swales, and areas of overland flow, including grades, dimensions, and direction of flow

_____ Final drainage patterns and flow paths

_____ Location of floodplain/floodway limits and relationship of site to upstream and downstream properties and drainage systems

_____ Location of all contributing drainage areas and points of stormwater discharge, receiving surface waters or karst features into which stormwater discharges, the pre-development and post-development conditions for drainage areas, and the potential impacts of site stormwater on adjoining parcels

_____ Location and dimensions of proposed channel modifications, such as bridge or culvert crossings

_______ Final stabilization and landscaping plans

7. Hydrologic and hydraulic analysis, including the following:

_____ Site map with locations of design points and drainage areas (size in acres) for runoff calculations

_____ Identification and calculation of stormwater site design credits, if any apply

_____ Estimates of unified stormwater sizing criteria requirements

_____ Time of concentration (and associated flow paths)

_____ Imperviousness of the entire site and each drainage area

_____ NRCS runoff curve numbers or volumetric runoff coefficients

_____ A hydrologic analysis for the existing (pre-development) conditions, including runoff rates, volumes, and velocities, showing the methodologies used and supporting calculations

_____ A hydrologic analysis for the proposed (post-development) conditions, including runoff rates, volumes, and velocities, showing the methodologies used and supporting calculations

_____ Hydrologic and hydraulic analysis of the stormwater management system for all applicable design storms

_____ Pollution load and load reduction requirements and calculations
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______ Final good engineering and sizing calculations for stormwater control measures, including contributing drainage areas, storage, and outlet configurations, verifying compliance with the water quality and water quantity requirements of the regulations
______ Stage-discharge or outlet rating curves and inflow and outflow hydrographs for storage facilities
______ Final analysis of the potential downstream impacts/effects of the project, where necessary
______ Downstream analysis, where detention is proposed
______ Dam safety and breach analysis, where necessary

8. Representative cross-section and profile drawings and details of stormwater control measures and conveyances which include the following:
   ______ Existing and proposed structural elevations (e.g., inverts of pipes, manholes, etc.)
   ______ Design water surface elevations
   ______ Structural details of BMP designs, outlet structures, embankments, spillways, grade control structures, conveyance channels, etc.

9. ______ Applicable construction and material specifications, including references to applicable material and construction standards (ASTM, etc.)

10. ______ Erosion and sediment control plan that, at a minimum, meets the requirements outlined in the Virginia Erosion and Sediment Control Regulations and Handbook

11. ______ Landscaping plans for stormwater control measures and any site reforestation or revegetation

12. Operations and maintenance plan/agreement that includes the following:
    ______ Name, legal address and phone number of the party or parties responsible for long-term maintenance activities
    ______ Description and schedule of maintenance tasks
    ______ Identification/description of the source of funding to support maintenance activities
    ______ Description of access and safety issues
    ______ Procedures for testing and disposal of sediments, if required
    ______ Right-of-entry authorization for local government inspections/repairs, as needed

13. ______ Evidence of acquisition of all applicable local and non-local permits

14. ______ Waiver/exception requests

15. ______ Evidence of acquisition of all necessary legal agreements (e.g., easements, covenants, land trusts, etc.)

16. ______ Applicable supporting documents and studies (e.g., infiltration tests, geotechnical investigations, TMDLs, flood studies, etc.)

17. ______ Other required permits